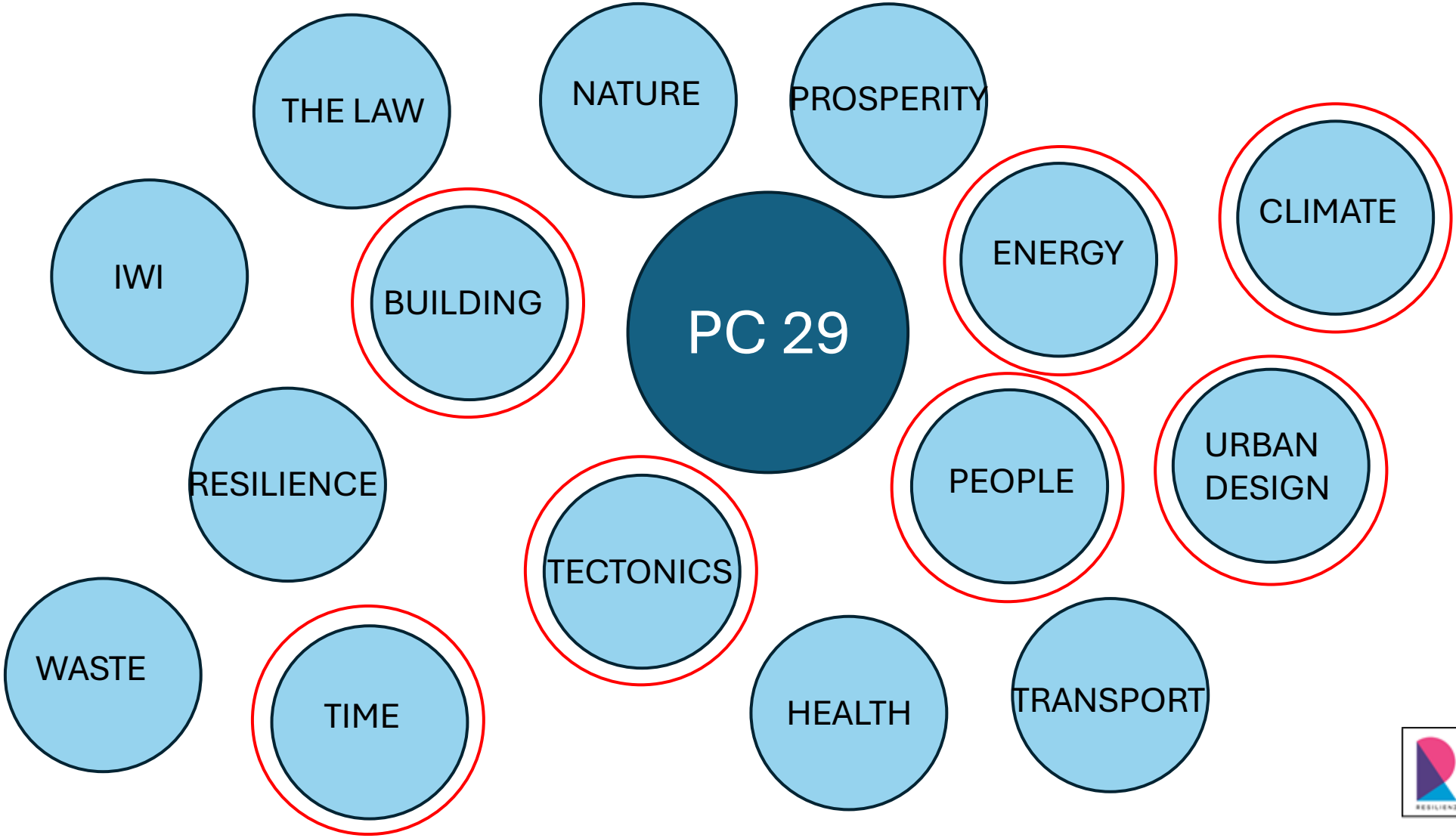
Everything is connected

PC29 should better explore and join the various dots



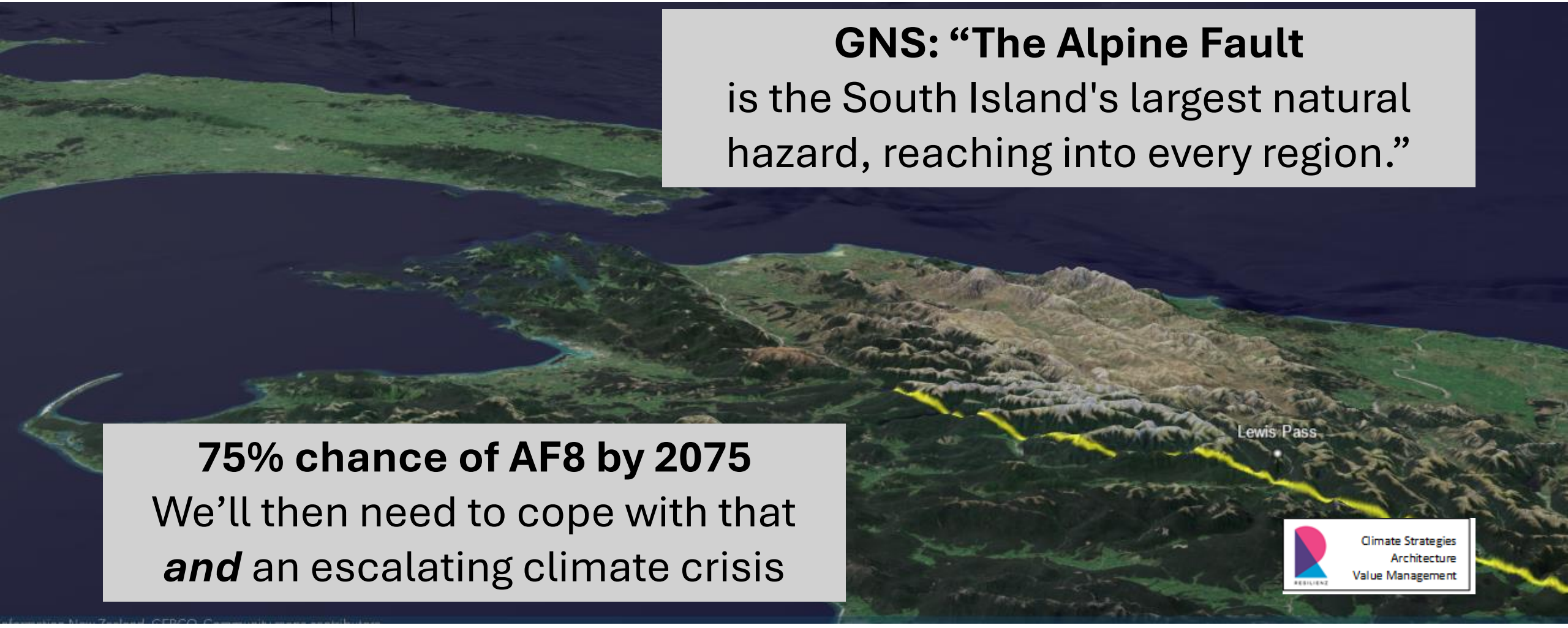
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Value Management

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S32: “Fault Deformation and Fault Awareness Overlays

Fault Hazards are proposed to be managed **within the PC29 extent**.” Great local analysis, but we haven’t considered an “Alpine Fault Force 8” earthquake.



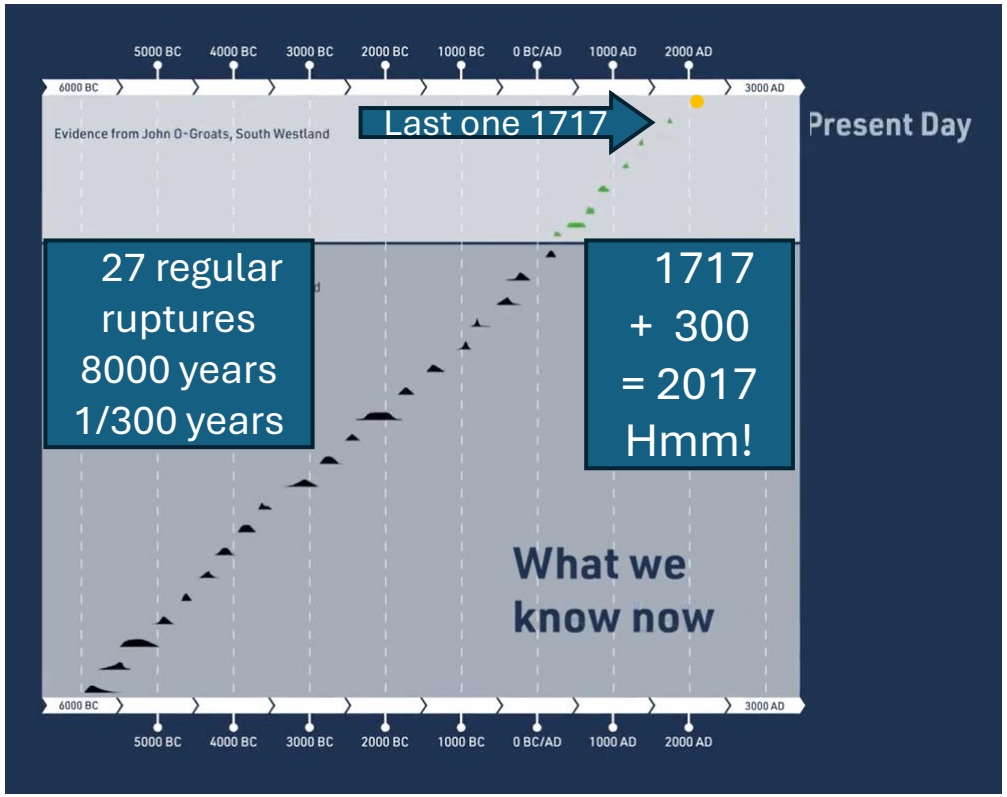
GNS: “The Alpine Fault
is the South Island's largest natural hazard, reaching into every region.”

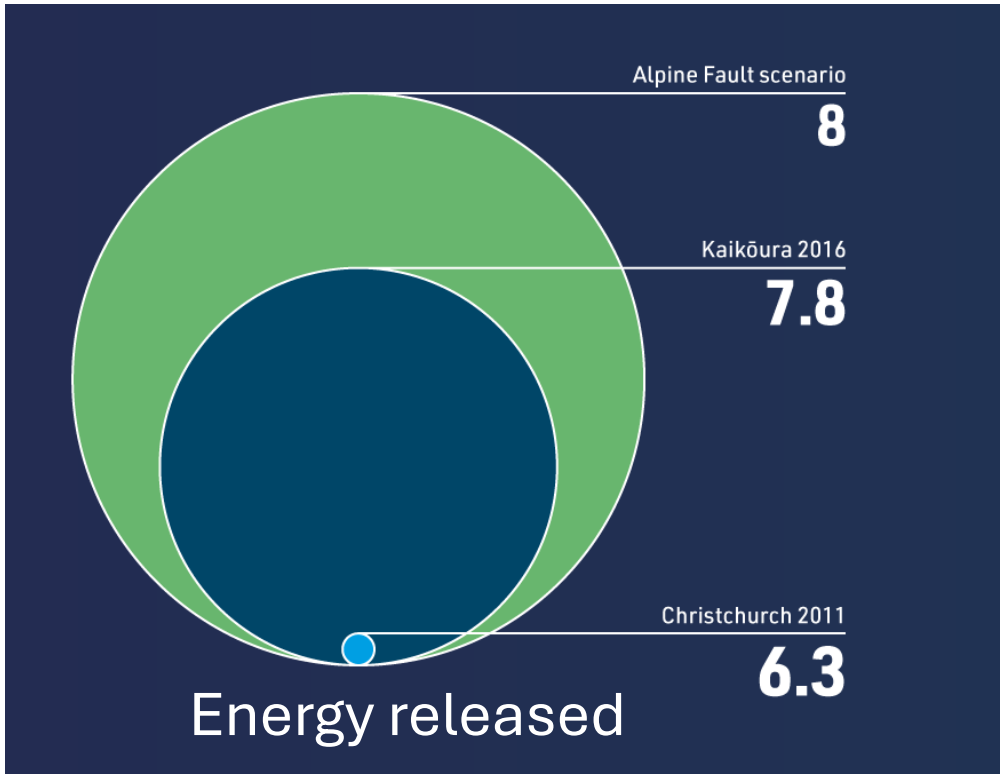
75% chance of AF8 by 2075
We’ll then need to cope with that ***and*** an escalating climate crisis

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TIME





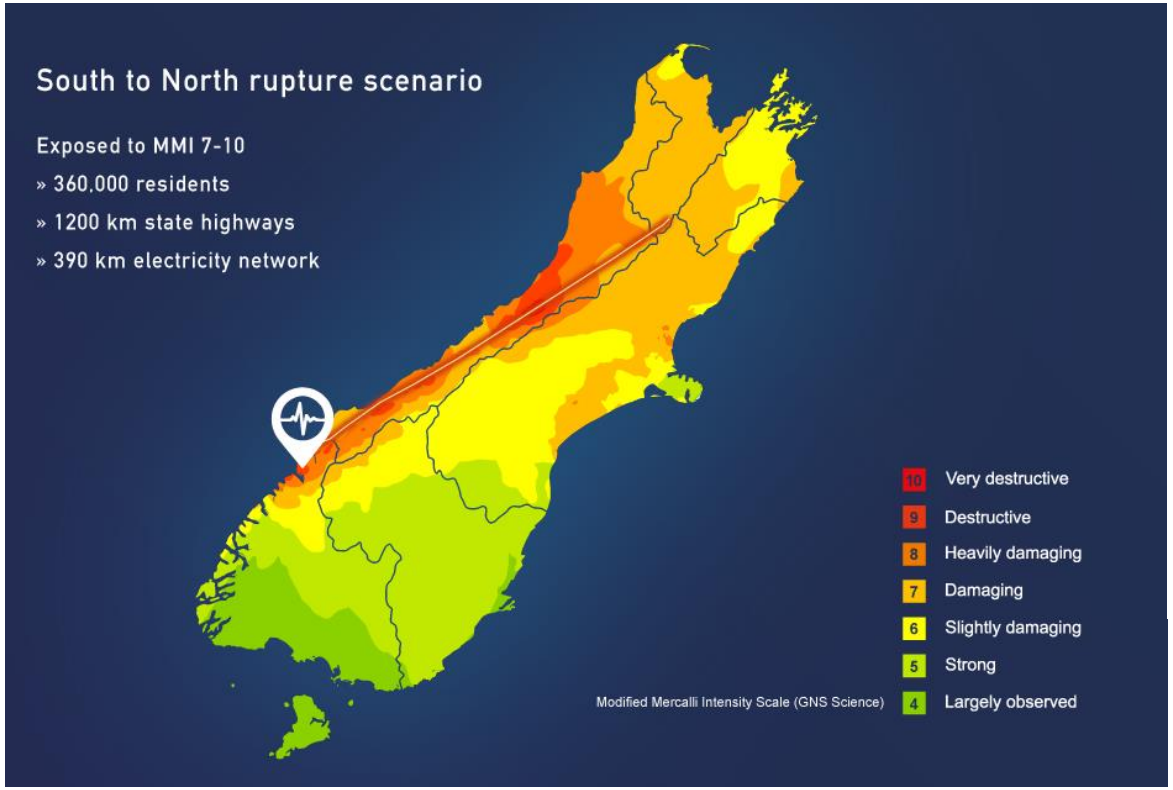
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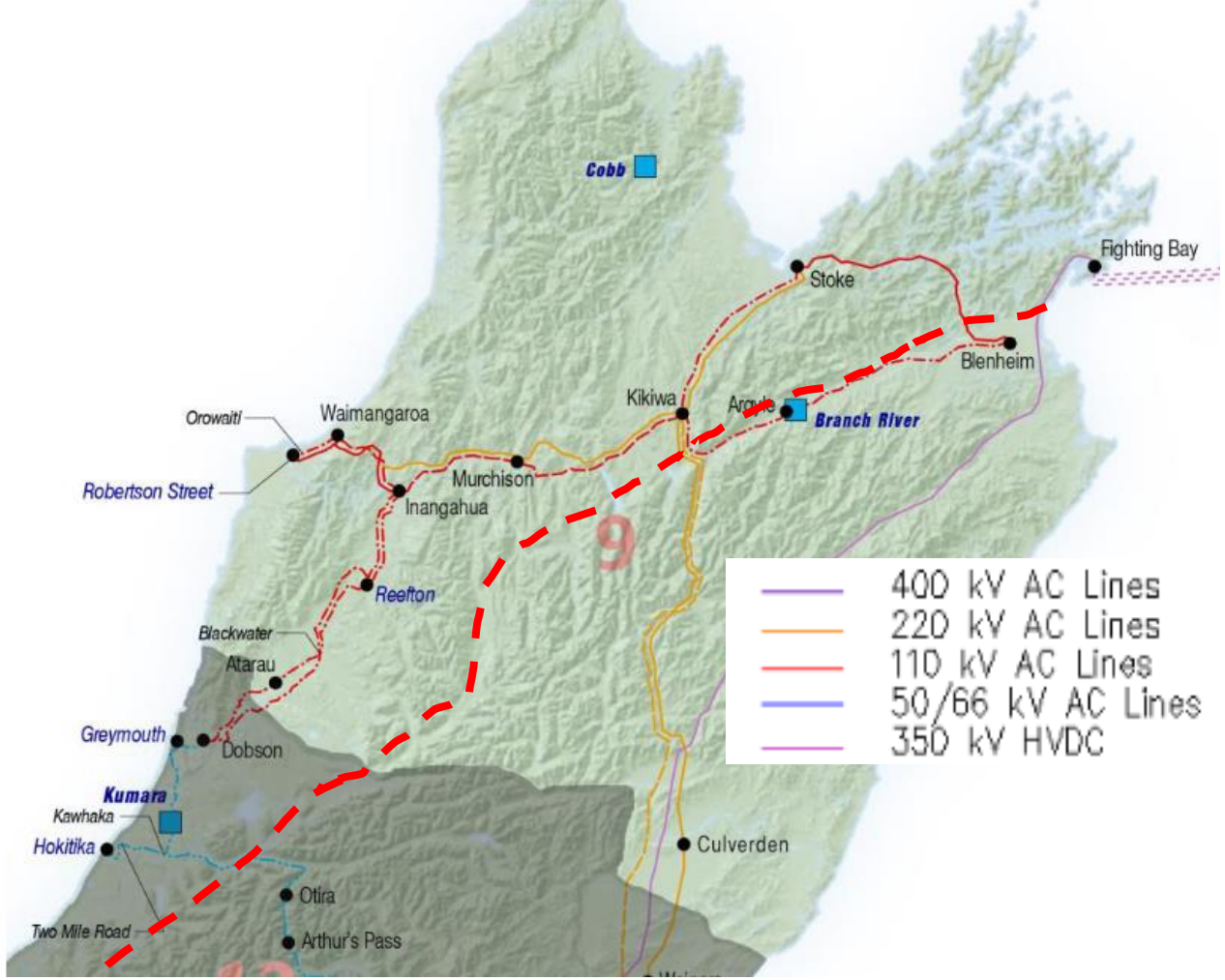
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ENERGY





Will PC29 cope? Might it help, even?
Local renewable generation?

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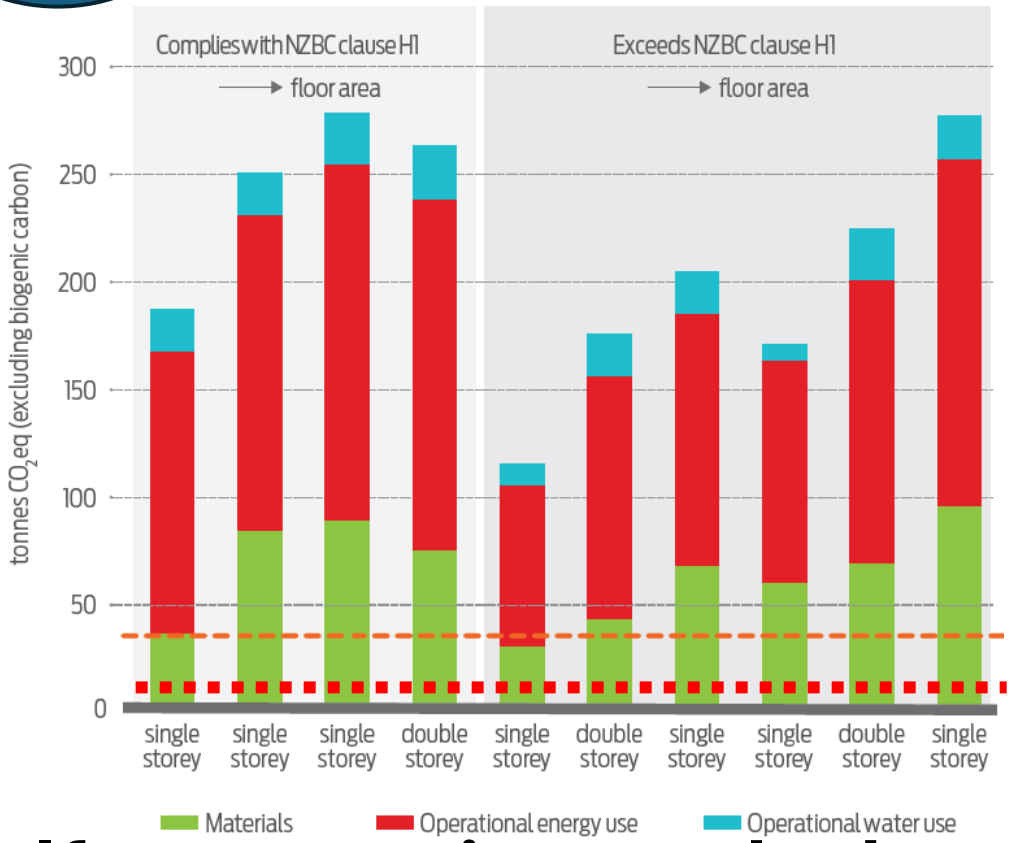
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BUILDING

CLIMATE

2020 acclaimed BRANZ research,

but we are now out of carbon budget



TEN HOUSES
LIFETIME CARBON EMISSIONS
PARIS AGREEMENT

Blue: from water usage

Red: from operational energy

Green: from construction

2020 lifetime carbon budget Paris 1.5C
2024 carbon budget Paris 1.5C

If we grow, it must be low carbon growth

PC29 should offer a framework for that

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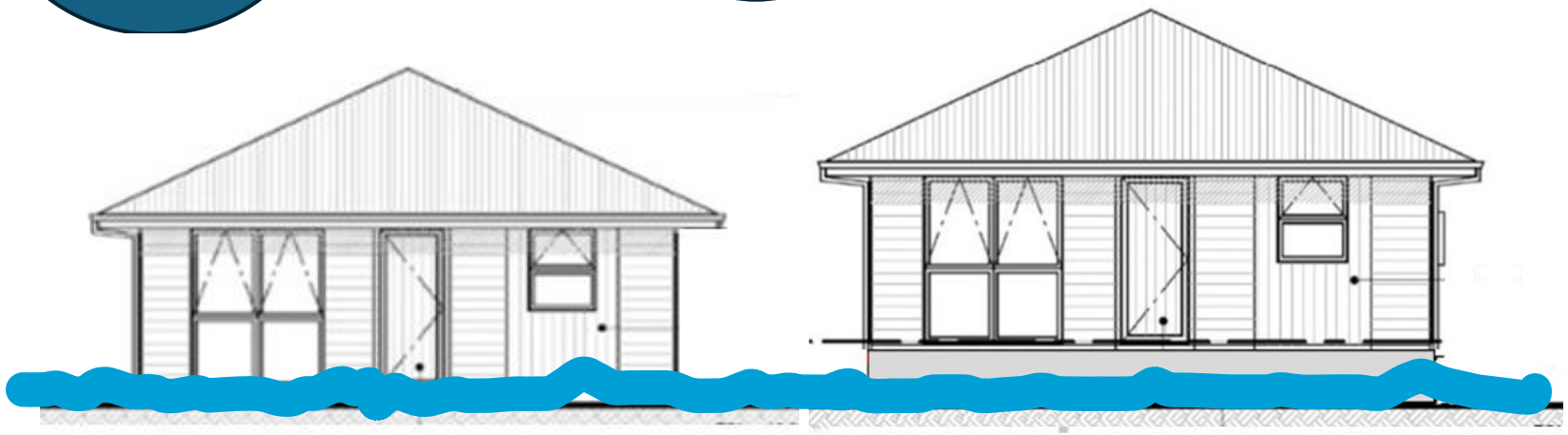
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BUILDING

CLIMATE

More timber, less concrete and steel

Local industry; renewable; low carbon



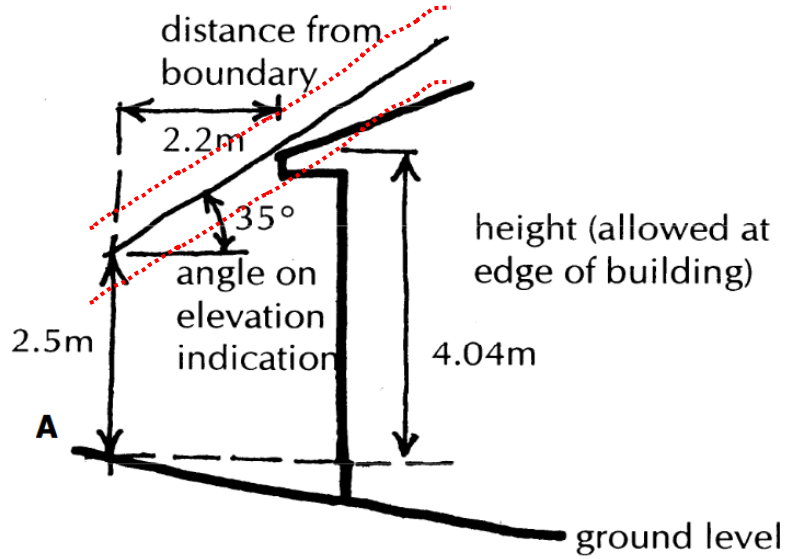


Figure 3. Calculating allowable height

CONC SLAB ON GROUND

- Now most common
- FL 150 mm min above ground
- Easier access, more siteworks
- High emissions: conc. + steel
- Worse in flood or EQ
- Can't relocate
- Uses dwindling resources

TIMBER FLOOR

- Traditional with crawl space
- FL say 800 mm above ground
- Low carbon, easier retrofit
- Renewable resources
- Flood freeboard, EQ resilient
- Mostly relocatable
- **Allow extra 600mm height for timber**

ADJUST NCC RMP TO ENCOURAGE TIMBER FLOORS

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URBAN DESIGN

CLIMATE

`PEOPLE

Can we build *and* be climate-safe?

Low carbon, high resilience



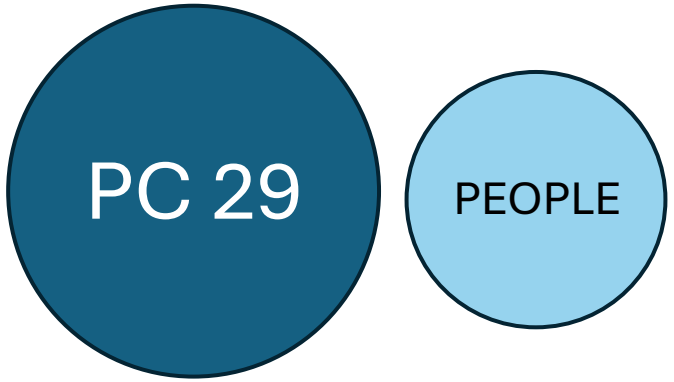
WALK-UP HEIGHT
No lifts (lower cost and carbon, more resilient in AF8 or power loss)
Less overshadowing
Improved landscaping

TIMBER STRUCTURE
Local industry
Renewable
Low carbon
Quicker, lighter

HALF BASEMENT
Better flood protection
Great utility space
Improved privacy
Allow extra 1.2 m



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Learn from PC29's mistake

When will we engage far better with citizens?

2023 "THE FUTURE OF LOCAL GOVERNMENT"
First of five "key shifts":
"Strengthened local democracy"

First recommendation on that:

"Local government and councils develop and invest in democratic innovations, including participatory and deliberative democracy processes."
e.g. citizens assemblies

2017 final report of EU RAMSES 5-year "Cities and Climate" programme

"It became obvious that …the empowerment of people [is] a fundamental element in increasing the acceptance of climate change adaptation measures."

2016 Lindsay Wood submission to NCC Planning and Regulatory Committee

"We must review our processes to better capture critical issues, without deluding ourselves the flawed submission system is a safety net."

Better for people, better for council, better decisions

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Many thanks

Tēnā koutou katoa

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